1. (Amended) A non-recursive filter for receiving samples and generating a filtered signal, said filter comprising:

at least one input for receiving said samples;

a plurality of summation units, each of said summation units comprising:

two multipliers directly connected to said input, said multipliers multiplying said samples and providing multiplied samples; and

an adder connected to said multipliers, said adder adding said multiplied samples and providing added samples; and

a plurality of delay elements positioned between said summation units, said delay elements receiving said added samples and providing a delayed output of said added samples to a successive summation unit of said summation units.

2. (Amended) The non-recursive filter in claim 1, wherein each of said delay elements is connected to an adder of said successive summation unit.

4. (Amended) The non-recursive filter in claim 1, wherein said multipliers receive said samples in an undelayed state.

Please cancel claim 5 without prejudice or disclaimer.

6. (Amended) The non-recursive filter in claim 1, wherein said non-recursive filter

comprises an interleaved non-recursive filter receiving odd and even samples and said adder receives an odd multiplied sample from one of said two multipliers and an even multiplied sample from a second of said two multipliers.

8. (Amended) A non-recursive filter for receiving samples and generating a filtered signal, said filter comprising:

a plurality of successive partial summation units, each partial summation unit having two multipliers for multiplying an undelayed state of each of said samples, and an adder for adding multiplied samples; and

a plurality of delay elements each coupled to said adder for receiving added samples and for providing a delayed output of said added samples to a successive partial summation unit.

11. (Amended) The non-recursive filter in claim 8, wherein said multipliers receive said samples in an undelayed state.

Please cancel claim 12 without prejudice or disclaimer.

13. (Amended) The non-recursive filter in claim 8, wherein said non-recursive filter comprises an interleaved non-recursive filter receiving odd and even samples and said adder receives an odd multiplied sample from one of said two multipliers and an even multiplied sample from a second of said two multipliers.

15. (Amended) An interleaved non-recursive filter for receiving samples and generating a filtered signal, said filter comprising:

at least one input for receiving said samples;

a plurality of multipliers directly connected to said input, said multipliers multiplying said samples and providing multiplied samples;

a plurality of adders, each of said adders being connected to two of said multipliers, said adders adding said multiplied samples and providing added samples; and

a plurality of delay elements positioned between said adders, said delay elements receiving said added samples and providing a delayed output of said added samples to a successive adder of said adders.

Please cancel claim 18 without prejudice or disclaimer.

19. (Amended) The interleaved non-recursive filter in claim 15, wherein said samples comprise odd and even samples and said adder receives an odd multiplied sample from one of said two multipliers and an even multiplied sample from a second of said two multipliers.